



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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January 20, 2000

Lon Thomas  
Thomas American Stone  
4040 South 300 West  
Salt Lake City, Utah 84107

Re: Initial Review of Notice of Intention to Commence Large Mining Operations, American Stone Mining Company, Rosebud Mine, M/003/026, Box Elder County, Utah

Dear Mr. Thomas:

The Division has completed a review of your draft Notice of Intention to Commence Large Mining Operations for the Rosebud Mine, located in Box Elder County, Utah, which was received July 16, 1999. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion.

The Division will suspend further review of the mine NOI until your response to this letter is received. Please provide a response to this review by February 28, 2000. If you have any questions in this regard please contact me, Tony Gallegos, Lynn Kunzler, Tom Munson or Doug Jensen of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg  
Permit Supervisor  
Minerals Regulatory Program

jb

Attachment: Review

cc: Mike Ford, BLM  
Mary Ann Wright, DOGM  
o:\Thomas\M03-26RV.wpd

## **REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS**

**American Stone  
Rosebud 1 & 2  
M/003/026**

### **R647-4-103 - Notice of Intention to Commence Large Mining Operations**

The Division received two separate notices (one for the Rosebud #1 and one for the Rosebud #2 quarries. Because of the close proximity of these two operations (approximately 1/4 mile from each other), the Division will consider this as one operation. Comments made below would apply to both operations unless otherwise noted in the text. (LK)

### **R647-4-105 - Maps, Drawings & Photographs**

#### **105.2 Surface facilities map**

Please provide a map showing the location and extent of surface facilities (i.e. location of pits, highwalls, dumps, pads, topsoil stockpiles, palletted stone storage areas, trailers, etc.). (LK)

Maps need to show where future mining will take place and where dumps generated by this activity will be placed. Please show the proposed mining sequence for the next five years and for life of mine. (DJ)

#### **105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)**

Cross sections need to show the ultimate highwall height. We are unable to calculate yardage needed to recontour slopes if the height of this highwall is not indicated. Each of the plans indicate 150 feet (300 feet total) of road being reclaimed, please indicate these road areas on maps. (DJ)

### **R647-4-106 - Operation Plan**

#### **106.3 Estimated acreages disturbed, reclaimed, annually.**

The plans for the Rosebud 1 & 2 indicate that 1/4 acre will be disturbed every year for 20 years. This totals the 5 acres of disturbance at each site through life of mine for a total area of 10 acres. It is not clear if the 6.25 acres of disturbance that presently exists is a part of this total, or if this 10 acres is additional disturbance. Please clarify. (DJ)

#### **106.5 Existing Soil Resources**

The reclamation plan identifies using 'fines' for substitute soil material. Please provide an analysis of this material to show that it is suitable for reclamation, or that it can be easily amended to make it suitable. The analysis needs to include pH, electrical conductivity (EC), sodium absorption ratio (SAR), texture, % organic matter (% OM), cation exchange capacity (CEC), nitrogen, phosphorus and potassium. (LK)

**106.6 Plan for protecting & redepositing soils**

Please provide a detailed plan for protecting and redepositing topsoil. From the soil survey, it appears that approximately eight inches of topsoil is available. This will generate approximately 10,800 cubic yards of soil material for stockpiling. Please show locations of where the topsoil stockpile(s) will be placed. Describe how topsoil will be protected from further impacts until used for reclamation (this would include such items as seeding, fencing, signing, etc.). Please describe how soil material will be respread, including depth of replacement, equipment to be used, and amendments to be incorporated (including rates). From the soil analysis provided it appears that fertilizer will not be needed. However, soils should be analyzed again for fertilizer requirements just prior to reclamation. (LK)

**106.8 Depth to groundwater, extent of overburden, geology**

Please provide a description of the geology of the area. (LK)

**106.9 Location & size of ore, waste, tailings, ponds**

Please describe the size and show the locations of all waste dumps. (LK)

**R647-4-107 - Operation Practices**

**107.1 Public safety & welfare**

**107.1.12 Disposal of trash, scrap, debris**

Please describe how trash and debris will be collected and disposed of. (LK)

**107.4 Deleterious material safely stored or removed**

Please describe how fuel, oils, and other deleterious materials are stored on site. (LK)

**107.5 Suitable soils removed & stored**

Please refer to comments under R647-4-106.5 and 106.6. (LK)

**107.6 Concurrent reclamation**

Please describe any concurrent reclamation activities that will be employed prior to final reclamation. If no concurrent reclamation is planned, please state this. (LK)

**R647-4-110 - Reclamation Plan**

**110.1 Concurrent & post mining land use**

The notice needs to provide a description of the current and post mining land uses (assumed to be grazing and wildlife habitat). (LK)

**110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed**

The plan for Rosebud 1(White Quarry) indicates that no drainages are affected by this operation. The present waste dump at this site is at the point of blocking an ephemeral drainage. A plan with specifics of how this drainage will be protected or redirected during mining and reclamation is required. It is mentioned that the dump will be resloped during reclamation and this plan is unacceptable unless provisions for free drainage are included. (DJ&TM)

The 150 feet of road at each quarry which will be reclaimed, needs to be indicated on a map. (DJ)

Please describe how these roads will be reclaimed. (LK)

It is not clear how an excavator will be used to retrieve material from the waste dump and place it against the highwall, the distance will be too great. Once material has been pulled from the outer slope of the waste dump, trucks or a dozer will be needed to move the material the additional distance to the back of the quarry bench. (DJ)

Regrading of the quarry highwall as shown in the cross-section will create additional disturbance. Is this disturbance part of the total disturbance or is it in addition to the stated acreage? (DJ)

**110.5 Revegetation planting program**

Please describe in detail, how the affected areas will be reclaimed and revegetated. This plan needs to provide depth of soil replacement, amendments and fertilizer (types and rates), seedbed preparation, seeding method(s) to be employed, and seed mix(es) (species and rates). Attached is a proposed seed mix that may be used to re-establish vegetation and meet the post mining land use of wildlife habitat and grazing. It is also recommended that after soil replacement, the area be ripped or disced to eliminate compaction and prepare a rough seedbed. Seeding should follow immediately after seedbed preparation and should be timed such that seeding would be done during late October. Please refer also to R647-4-111.12. (LK)

**R647-4-111 - Reclamation Practices**

**111.1 Public safety & welfare**

**1.12 Disposal of trash & debris**

Please describe how/where trash and debris will be disposed of. (LK)

**111.2 Reclamation of natural channels**

See R647-4-110.2 (TM)

**111.5 Land capable of post mining land use**

Please refer to comments under R647-4-110.1 and 110.5. (LK)

**111.9 Dams & impoundments left self draining & stable**

See R647-4-110.2 (TM)

**111.12 Topsoil redistribution**

With approximately eight inches of topsoil available, (as determined from the soil survey), the Division will require a minimum of six inches of topsoil be respread for reclamation. While the soil analysis would indicate that it is unlikely fertilizer would be needed, the addition of five tons per acre of composted manure as a soil amendment would greatly enhance the likelihood of revegetation success. The Division cannot comment on the need for fertilizer and amendments to augment the 'fines' that are proposed to be used as a substitute soil material until we receive an analysis of this material (see comments under R647-4-106.5). (LK)

**R647-4-112 - Variance**

No variances were requested.

**R647-4-113 - Surety**

A bond cannot be calculated until the operational and reclamation practices questions addressed in this review are answered. (DJ)

Attachment: Seedmix

Recommended Revegetation Species List  
for

American Stone, Inc.  
Rosebud Quarry  
M/003/026

Prepared by DOGM January 20, 2000

<u>Common Name</u>	<u>Species Name</u>	<u>*Rate lbs/ac (PLS)</u>
'Hycrest' crested wheatgrass	<u>Agropyron cristatum 'Hycrest'</u>	0.75
Intermediate wheatgrass	<u>Agropyron intermedium</u>	1.0
Bluebunch wheatgrass	<u>Agropyron spicatum</u>	2.0
Orchard grass	<u>Dactylis glomerata</u>	0.5
Sandberg bluegrass	<u>Poa sandbergii</u>	0.5
Basin wildrye	<u>Elymus cinereus</u>	1.5
Ladak alfalfa	<u>Medicago sativa</u>	1.5
Yellow sweetclover	<u>Melilotus officinalis</u>	0.5
Palmer penstemon	<u>Penstemon palmeri</u>	0.5
Small burnet	<u>Sanguisorba minor</u>	2.0
Wyoming big sagebrush	<u>Artemisia tridentata wyomingensis</u>	0.1
4-Wing Saltbush	<u>Atriplex canescens</u>	1.5
Rubber rabbitbrush	<u>Chrysothamnus nauseosus</u>	0.25
Forage kochia	<u>Kochia prostrata</u>	0.5
Bitterbrush	<u>Purshia tridentata</u>	1.0
	Total	13.1 lbs/ac

\*This is the recommended broadcast seeding rate.

If the species are to be drill seeded, decrease the rate of grass species by 1/3.





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## FACSIMILE COVER SHEET

DATE: January 20, 2000

NUMBER OF PAGES INCLUDING THIS COVER SHEET: 7

TO:

Lon Thomas  
American Stone  
4040 S 300W  
SLC UT 84107

FAX NUMBER: 262-4474

FROM:

Wayne Heeburg  
Minerals Reclamation and Development Program

PHONE: (801) 538-5291

FAX: (801) 359-3940

SUBJECT: Initial Review, Raschus Mine, m/003/026  
letter dated 1/20/2000

REMARKS: Original hard copy forthcoming  
via regular mail.

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